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N. E. FARMER.

GUANO, &c.

To the Editor of the New England Farmer:

I send you herewith a head of corn which was grown last year under the influence of *Guano*—hoping that you or some of your friends will try the experiment of growing it again with the same treatment, in contrast with some on the same soil without Guano.

I recommend the hills to be placed six feet asunder, and the seeds at a greater distance than usual, on account of the expected luxuriance of growth, and that it be sown on poor sandy soil, without any other manure; but above all, that the guano be added just previous to rains.

I seize the present moment to call your attention to this subject, because I see that the assertions of Mr Bicke, of Germany, which were mentioned by me last year, at one of the agricultural meetings at the State House, have again raised their heads through the flood of ridicule which was almost universally poured on them. His experiments, which have been repeated by Mr Campbell, of Scotland, consisted in adding substances to the contents of the seed, by soaking it in solutions of various salts, such as silicate, nitrate, sulphate, and phosphate of soda—muriate, sulphate, and phosphate of ammonia, and nitrate of potash. His chief experiment was with wheat, which he soaked 48 hours in these solutions, and the result was that the seeds produced from seven to eleven shoots, against three or four shoots from the same seed unsoaked, and sown on the same soil.

Mr Johnston, the agricultural chemist, whose recent works are well known here, has also lectured on this subject, and strongly recommended this operation of soaking.

The connexion between this subject and the guanoed seed I hand you, will be evident to most of the readers of your journal, when I refer to what I have previously shown there, viz: that the analysis of Mr Hayes has shown that this seed contains more of these salts than that grown without guano. And these ingredients having been acquired naturally by the seed from the guano, which contains most of them in abundance, it seems probable that they will grow with as much luxuriance as those which have acquired them artificially by soaking.

These recent experiments show almost to a certainty what was before a matter of doubt, that the quality of seed depends chiefly on its ingredients: and the rapid advance of scientific researches in vegetable physiology, promises at length to bring this microscopic subject under the complete dominion of science.

Permit me to suggest to you, as this new manure, guano, has at length become an article of regular importation into this country, that it would much increase the value of your journal if you would copy the interesting experiments with it, which are detailed in the various English agricultural periodicals, for you may rest assured that it is peculiarly adapted to the poor sandy soils of New England, and cannot fail, under judicious application, to become an article of extensive use and benefit.

I will take this opportunity of stating, that the celebrated German chemist, Mitscherlich, recently read a paper before the Prussian academy of Sciences, in which he mentioned that the ashes of the dried sea-weed, *Fucus palmatus*, which is extensively burned on the coast of Ireland for kelp, contains a considerable per centage of phosphate of lime: hence there can be no doubt of the value of sea-weed as manure, when properly mixed with other substances. Also, that phosphate of lime has been discovered to exist in the English chalk and many of the limestones: this will also account for the great value of lime in some districts, where, no doubt, the phosphates are exhausted; and adds to the weight of testimony in favor of the importance in agriculture of the phosphates generally.

I trust that after carefully reviewing the numerous facts beneficial to agriculture lately brought into prominent view by chemical science, but few persons, in the present day, will venture to doubt either the great value of its application to this pursuit, or that it is the duty of every one interested therein, to promote its study and dissemination by every means within their reach.

Yours, truly,

J. E. TESCHEMACHER.

Boston, Feb. 24, 1844.

☞We concur with our correspondent on the importance of bringing to the attention of our farmers the results of experiments with guano, made abroad. We have copied several articles showing the value of this new manure, and placing its worth beyond question; and we have no doubt that when it shall be more common with us than at present, our farmers will not fail to avail themselves of its aid. But we cannot urge its general use at present, since it is not procurable in sufficient quantity nor at so low a rate, as to render its general use practicable. For the benefit of those who may wish to try it, we would say that a few barrels of guano are on sale at the Agricultural Warehouse, 52 North Market street.—Ed.

For the New England Farmer.

ERGOT.

Messrs. J. Breck & Co.—Gentlemen—I see in your paper of Jan. 17th, 1844, an article taken from the Albany Cultivator, upon *Ergot.* Believing there is some information *of the right kind*, in existence, I write to inform you, that at the time I resided in Virginia—between the years 1816 and 1826—I understood that a young physician, Chas. C. Bird, of Frederick county, Virginia, had distinguished himself by an "Essay upon Ergot," which he had handed in to the Faculty of the Institution, in compliance with a rule, which made it imperative upon all the Alumni, previously to receiving the degree of M. D., to furnish an essay upon some subject connected with the profession. This essay, I understood at the time, was published in some medical work connected with the Philadelphia institution, at which Mr Bird graduated.

Mr Bird, if I recollect rightly, instituted a series of experiments upon fowls, horses, and oxen, with ergot. The result of these experiments, so far as I recollect, was the loss of *hoofs* by the horses and oxen, and the loss of *toe-nails* (or claws) by the fowls.

The object of this communication is to call the attention of those interested, to the Essay, which I presume will give them important *facts*, ascertained by a series of skilful and long continued experiments. Mr Bird, I believe, settled as a physician, in Leesburg, Virginia, some few years afterwards. Whether he is now living or not, I cannot say; but I presume *all the facts* (if deemed of consequence sufficient,) may be obtained by application to the Faculty of the Philadelphia Medical School. I think Mr Bird graduated somewhere about the year 1824.

I have also a vague recollection, that some time prior to the year 1816, several children died in Boston, *as was supposed*, from eating bread made in part or in whole of *rye flour*—(and unless my recollection fails me, they were the children of a Mr Selfridge)—which rye flour was supposed to contain *ergot*. One thing is very certain: I have never eaten any thing made of rye flour since; and I am sure that the death of those children (whose names I may not correctly recolleet,) was, and is, the cause of my abstaining entirely from the use of rye flour in every shape.

It may not be improper here to remark, that during my residence in Virginia, I know the farmers were, (and I believe they now are,) in the constant habit of feeding their horses upon *rye*, which I believe they called "chop feed." I mention this, because the public can be interested only in *facts*, regardless of all theories and opinions. This last fact goes strongly to prove, that, notwithstanding Dr. Bird's Essay upon the deleterious effects of *ergot* upon horses and oxen, the farmers of his *own* State did not think proper to cease feeding their horses upon *rye:* whether it made them more circumspect in its use, I cannot say.

If you deem these statements of any consequence, you are at liberty to make such use of them as you may deem proper.

With sentiments of respect,

I remain, gentlemen, yours, &c.

WM. CLOUGH.

St. Charles, Mo., Feb. 4, 1844.

To be intelligent operatives, we must not only understand what we are about, but we should also have just conceptions of the objects about us. No one can be a truly enlightened agriculturist, who is wholly ignorant of the nature and chemical properties of his soil, and of those laws of organic life which affect the well-being of domestic animals, and regulate the developement of those features which give value to stock. I can see no good reason why the farmer should not understand the *philosophy* of his business as well as other artisans.—*Dr. Darlington.*

EIGHTH AGRICULTURAL MEETING AT THE STATE HOUSE—Feb. 27.

Hon. Josiah Quincy, jr. in the Chair. The subject under discussion—"Fruit Trees." The editor of this paper opened the meeting with the following remarks:

A plentiful supply of good fruit is important to our country in these particulars, viz: it is conducive to our health, pleasure and profit. A plentiful supply of the delicious fruits of our climate, when fully mature, may be freely indulged in as they successively appear, with beneficial effects.

To those who have made a commencement in horticultural pursuits, I need not say, they have entered a field, which as they advance, presents at every step a more delightful aspect, giving increasing satisfaction and pleasure. Let a man but once get a taste for the cultivation of fruit and ornamental trees and plants, and he finds at his command all the relaxation and amusement desirable, in connexion with his own family and home.

The cultivation of good fruit, as a source of profit, is engaging the attention of many in the vicinity of our principal cities and villages; but it will be a long time before the supply will be equal to the demand. At present, the price of good fruit is so high that a numerous class are excluded from purchasing many of the more delicious sorts.

The principal varieties of fruit which succeed in our climate, are the Apple, Pear, Quince, Plum, Cherry and Peach, besides many other minor fruits, which though of less importance, are highly desirable.

The Apple stands first in importance, as its use is indispensable in every family. As an article of export, it is of some and increasing consequence: our climate is admirable for the perfection of the fruit.

Formerly, little attention was given by many of our farmers to the quality of the apple which they suffered to grow on their farms. If it was a good cider apple, it was all that was considered necessary: good fruit for the family and market, was of minor importance. If a farmer could make 50, 100, or 150 barrels of cider, it was about all he expected from his orchard, or desired. It was enough to *fuddle* his own and his neighbor's family for the year to come—and what, with the feelings and habits then prevailing, could he wish for more.

But when the glorious Temperance Reformation dawned upon us, and the brains of the people began to be a little more clear, and their mental vision more distinct, the inquiry was made, "What shall we do with our orchards?" At first, some, in their zeal, were disposed to wreak their vengeance upon the trees, and inconsiderately "laid the axe to the root," and felled them to the ground; but the more discerning soon discovered that apples were valuable food for stock, and many were consumed in this way. As the vitiated taste of men became reformed with their habits, a desire for better fruits was manifest, and we had the pleasure of witnessing the renovation of many orchards by grafting them over with good fruit.

In New England are found many native varieties of the Apple, of the first class, and which for our climate, are superior to any in the world. Among all the imported varieties, and those from the Middle States, few will compare with the Baldwin, Roxbury Russet, Greening, Lyscom, Porter, and a long catalogue of native fruits that might be enumerated.

In setting out an orchard, the first important step is to prepare and enclose the ground, as it is necessary that young trees should be protected from cattle. The ground should be deeply pulverized and enriched. The subsoil plow is a capital instrument to use, as by it the ground can be stirred to the depth of 20 inches. The next step to take is to procure young trees, suitable for planting. And in this matter it is necessary to use some precaution. If the trees are taken from a nursery where they have been crowded together, and forced by too great an application of manure, as is sometimes the case, the trees when set out in a more exposed situation and in poorer soil, will not do well, and although they may not die, will receive so great a check that it will take many years for them to recover. On the other hand, trees should not be taken where they have been stunted in the nursery, and starved in such a manner that they have become mossy and diseased. Good healthy trees should be selected, two years from the seed, which if properly grown on vigorous stocks and budded low, will be about 6 feet high.

The distance between apple trees should not be less than two rods each way; some say not less than 40 feet. It is a common practice, and a very good one, to set out intermediate rows of peach or plum trees, which by the time the apples need the room, will be out of the way. Trees should be planted as near the surface as possible, and no manure should come in contact with the roots. It is not considered necessary to stake trees, as they frequently receive more injury from this, by chafing, however well secured, than benefit; and most experienced persons have abandoned the practice.

In my experience, and from observation, I have come to the conclusion that an orchard should be kept under perpetual cultivation, as by pursuing this course, the trees will make more rapid progress, come into bearing quicker, and produce finer fruit. This practice is pursued by some of our most thrifty market gardeners. There are some varieties of apples which never succeed well in grass ground. [If the ground is very rich, and the grass kept down as far about the tree as the branches extend, and well manured every year, grass may be grown in the intervals between the trees; but this is different from the practice of permitting the grass to take full possession, with a scanty supply of manure.]

The enemies of the apple tree are the borer, curculio, canker worm, and caterpillar; and they are great obstacles to the successful cultivation of this fruit.

The Pear tree is next in importance to the apple, and require rich soil, inclining to moisture. On dry, lean soil, good and perfect fruit cannot be expected. Pears are budded on pear and quince stocks. It is well to have some of each description. Some varieties of pears succeed best on quince stocks; they come into bearing much quicker, and the fruit in some cases is more perfect and higher colored. Trees on quince stocks may be planted very thick, and, where there is but little ground and many varieties desired, are most to be preferred. We have in cultivation many fine foreign varieties, which are hardly known among our farmers generally. Our Horticultural Society has done much in introducing and proving many valuable varieties, and they have gathered together many fine native sorts, besides those generally known. During the last season, they have brought to notice four or five new varieties of native pears, which are worthy of a place in every collection.

Our native seedlings are generally better adapted to our climate than many foreign sorts, and better bearers and more hardy. The new varieties alluded to, are the Hull, Wilbur, McLaughlin and Lawrence.

[The Hull and the Wilbur were received from D. Wilbur, jr., Somerset, Mass., on the 23d of September, then in eating. A beautiful seedling was exhibited at the Horticultural Rooms by C. W. Oliver, of Lynn, in perfection 21st of October, the flavor very fine, having some resemblance to the Seckel, but a size larger and more beautiful. On the 25th of November, the Lawrence Pear was examined and tested: it was from Wilcomb & King, nurserymen, Long Island, N. Y.; pronounced very fine. On Dec. 2d, Mr S. L. Goodale, of Saco, Me., exhibited a Pear known by the name of the McLaughlin, of fine quality, which was originated in the vicinity of Portland.]

The fire-blight is a disease which is often destructive to the Pear tree.

The Quince requires a moist, rich soil, and has no enemy except the borer. There can hardly be said to be more than two varieties—the Orange and Portugal.

In the cultivation of the Plum tree, we find much to contend with. It is subject to the ravages of the Curculio, which in some districts has discouraged the horticulturist in attempting to raise this fine fruit. In the city of Boston, and some places in the vicinity, it is raised to perfection; while in other locations the crop is invariably destroyed, or so little is perfected as hardly to make it an object to encumber the ground with the trees. The black warty excrescence is another disease fatal to the tree, if not timely checked by amputating or cutting off the diseased part. Salt has been recommended as destructive to the Curculio, and has in some cases been applied with success.

The Cherry is a delicious and healthy fruit, easily cultivated, and not so common among farmers as it should be. Some persons complain of the depredation of birds upon this fruit, and speak of them as very annoying; but in Brighton, we have enough for birds, boys and all, and many rot on the trees. If any farmer would set out a dozen trees, there would be no complaint on this score.

As to the Peach, it is a most delicious fruit, but the greatest obstacle in its cultivation is the severity of the climate. In some severe cold seasons, the trees have all been destroyed, and often suffer so as not to bear abundantly; but notwithstanding these great discouragements, it is best to persevere and keep planting, as the young trees will begin to bear in two or three years after planting the stone, if budded the first season, which is the best method.

(Concluded on editorial page.)

Charcoal for Manure.—Charcoal is recommended as a manure, because it is an absorbent of ammonia, and it is supposed that by spreading it on the soil, it will absorb the ammonia from the atmosphere, and transmit it to the growing plants as they require. That it is an absorbent of ammonia, may be known from its taking away the effluvia from tainted meat or fish. So completely will it do this, that we have known meat that had considerably taken hurt, made good and free from any disagreeable taste or smell, by being repacked with charcoal between each layer.—*Alb. Cult.*

ON THE ECONOMY OF STALL FEEDING.

In a lecture on the fattening of cattle, delivered to the Royal Agricultural Society, and reported in the *Gardeners' Chronicle*, I stated that some experiments were then in progress at Whitfield Farm, through the kindness of Lord Ducie, which I believed would confirm some of the theories adduced in that lecture. I now beg to redeem my promise of communicating to the public the results of these experiments. They were carefully superintended by Mr John Morton, from whom I have received much assistance on this and on many other occasions.

Liebig, in his work on Animal Chemistry, has defined more accurately than any preceding writer the source of animal heat, and the constituents of the food used in its support. He has shown that warmth is an equivalent for food, and that cold, on the other hand, renders necessary a greater supply of food, by carrying off rapidly the heat which its combustion engenders. He has also pointed out that motion is always accompanied by a waste of matter in the body, and it followed naturally from this that an economy of food was necessarily the result of an economy of motion. The experiments of Lord Ducie and Mr. Childers, upon feeding sheep in sheds, afforded a powerful practical illustration of these theories. The warmth communicated by the sheds was equivalent to a certain amount of food, and the deprivation of motion occasioned a diminished waste of the tissues of the body, and, therefore, a corresponding saving of aliment. To illustrate these views more fully the following experiments were instituted on five lots of sheep, each lot consisting of five sheep :—

No. 1 lot was fed out of doors, and was therefore exposed to all the influence of atmospheric changes.

No. 2 lot was kept under an open shed, and therefore was less exposed to the inclemencies of the weather.

No. 3 lot was placed under an open shed, similar to the last lot, but in this case the sheep were kept solitary, *i. e.*, each was confined to a space of 3 ft. by 4 ft.

No. 4 lot was placed under a close shed in the *dark*.

No. 5 lot was kept under a shed like No. 4, except that each sheep was separated, and confined to a space of 3 ft. by 4 feet.

These different lots were allowed 1 pint of Oats for each sheep per diem, but were supplied with as many Swedes as they felt disposed to eat; the weights consumed were accurately determined. The live weights of the sheep were ascertained before the commencement, and at the conclusion of the experiments the results were as follows :—

Lots.	Live weight Nov. 18.	Live weight Mar. 9.	Increase in live weight.	Weight of roots eaten.
1.	108 lbs.	131½ lbs.	23½ lbs.	1912 lbs.
2.	104	132 2-5	28 2-5	1394
3.	108	130 1-5	22 1-5	1238
4.	102	129 4-5	27 4-5	886
5.	111	131 3-4	20 3-4	886

In the consideration of these experiments, we may refer to the "roots" alone, as the quantity of Corn supplied to the sheep was in all cases the same. It will be seen that the first lot, or that which was exposed to the cold, ate more than double the quantity of food consumed by the sheep fed in a dark warm shed. Exposure to cold winds abstracted heat so rapidly from the bodies of the sheep, that a large amount of food was necessary to support their proper temperature. That this excess of food was wholly employed for this purpose, and entirely lost as far as the farmer is concerned, is obvious, for the absolute increase in weight of the first and last lots is nearly equal, although the relative increase for the food consumed is much in favour of the latter. Thus, also, it will be seen, that although the second lot of sheep received 518 lbs. of food less than the first, yet that lot reached a greater weight both absolutely and relatively. The second lot had the protection of a shed, and, therefore, did not require so much food to keep up the proper temperature of their bodies as the exposed sheep. In these two cases, both lots were similarly situated with regard to exercise. In lots 3 and 5, a diminished space was afforded, but without advantage, probably from disturbing the placid temperament of his animals, as they were observed to fret and lose their appetites when thus separated. The result attending the experiment with the 4th lot is highly interesting. The sheep forming this lot were confined in the dark. In this state there were no inducements for the sheep to move about, or even to remain in a waking state, except when impelled by hunger to eat food. Hence they passed much of their time in sleep. During sleep, the voluntary motions ceased, and there was small waste of the tissues of the animal, which now possessed almost entirely a vegetable life, and increased rapidly in size, with small consumption of food. Although eating considerably less than one-half of the food consumed by those sheep which were exposed to the weather and to the causes of waste produced by voluntary motion, this lot increased nearly as much in absolute weight at a relative economy of food nearly three times as great.

The results of these experiments are very favorable to the views brought forward in the lecture referred to. They will, I trust, confirm, if proof be still requisite, the economy of stall-feeding, and the principles on which this practice depends. I am quite aware that considerable evils have been found to attend the system in certain cases; but in every case which I have examined, the evils seem wholly attributable to the manner in which the system was carried into operation, and not to the system itself. Cattle are confined in sheds built without any regard to ventilation or cleanliness; they become diseased; and stall-feeding is pronounced by the farmer, who thus suffers the effects of his own want of care, to be very injurious, and to be productive of evil consequences to the health of his stock. If cattle are exposed continuously to an impure atmosphere, the tone of their system becomes depressed and disease follows, sometimes exhibited in the form of diarrhœa, frequently of rot, very often of consumption, or of one or other of the many diseases to which cattle are liable. But none of them are the results of the system, nor have they occurred when due regard has been paid to cleanliness and ventilation. These are points which retard the progress of fattening much more than farmers are generally aware of. Attention to these circumstances would I feel convinced, render more sure the favorable results which follow from the communication of warmth and the deprivation of excessive motion, and would be further productive of economy in the returns for food supplied.—*Dr. Lyon Playfair, before the Royal Institution, Manchester.*

REARING LAMBS FOR THE BUTCHER.

The Essex (Mass.) Agricultural Society's Transactions for last year, contain a valuable statement from Joseph Marshall, of Ipswich, on the management of sheep for the purpose of rearing lambs for the butcher. He keeps them in good plight, as he finds they will not otherwise be profitable. In winter they are fed on clover, or second crop hay, bean and pea vines, &c. He is scrupulously attentive to the preservation of their health, by keeping them in dry places. In winter, they are kept under an open shed nights, and are never allowed to be out in wet storms, day nor night. He does not even allow their skins to be wet by washing them—preferring to wash the wool after shearing. He has followed this treatment with his sheep for several years, and has never had an unhealthy or dirty-nosed one among them—and they have never had a tick or a louse. At the time of lambing, he gives them each a gill of corn every morning, and feeds plentifully with turnips or carrots. They commence lambing in February; and last season, a part of them being put with the buck in March, again produced lambs in August—and Mr Marshall has no doubt that had they all been with the buck at that time, they would have "produced a second crop of lambs." He intends hereafter to have them produce lambs twice a year. He sells his lambs at between three and four months old, at two dollars each, and finds the business profitable. His sheep average four to five pounds per fleece. Mr M.'s pastures are high ground, not very rich, nor better adapted to sheep than most farms in the country.—*Alb. Cult.*

Roots of Plants.—In loamy or sandy soils, the roots of trees have been found to penetrate to the depth of 10 or 12 feet; and the roots of the Canada thistle have been traced 6 or 7 feet below the surface. Wheat, if planted in a mellow, rich soil, will strike its roots 3 feet downwards, and elongate much further horizontally. The roots of oats have been discovered at 18 inches from the stem, and the long thread-like roots of grass extend still further. The roots of an onion are so white, that in black mould they can be readily traced, and in a trenched or spaded soil, they have been followed to the depth of two feet. The potato throws out roots to the distance of 15 or 20 inches; and the tap-rooted plants, turnips, beets, carrots, &c., independent of perpendicular roots, spread their fibres to a distance which equals, if it does not exceed the potato. It is perfectly absurd to expect to succeed with roots of this class, unless the ground is so mellow as to allow them to penetrate and grow freely—and to effect this mellowing, nothing can be so effectual as the use of the subsoil plow.—*Chatham (Eng.) Jour.*

Great Crops.—Gov. Hill states in the Monthly Visitor, that there were raised last year on an island in Winnipisseogee lake, 66 1-2 bushels of fine spring wheat to the acre—the same land having given the year before, 137 bushels of shelled corn. The farmers of that region, we should suppose, can have no great desire to emigrate West.

Black Sea Spring Wheat.—Mr G. Farnum, of Shoreham, Vt., says he thrashed about 500 bushels of this wheat, and did not have a single rusty bundle; whereas three-fourths of the other varieties was badly damaged by rust.

DANA'S PRIZE ESSAY ON MANURES.

[Continued.]

THE QUALITY OF DUNG.

It is affected first, by the season; second, by the age; third, by the sex; fourth, by the condition; fifth, by the mode of employment; sixth, by the nature of the beast; seventh, the kind of food.

1st. The season. It is because digestion is worse in summer than in winter, a general fact, that summer manure is best. And where cattle are summer soiled, it is said the manure is worth double that from stall-fed winter cattle. I do not think much is to be attributed to the worse digestion in summer, but the cause of this great difference in value, is to be found in the fact, that soiled cattle generally get a large proportion of blood-forming food.

The wear and tear of their flesh is little, and hence, requiring little of their food to keep up their flesh, a greater portion goes off in dung, which thus becomes rich in ammonia. The green plants, rich in nitrogen, afford abundance for milk, which, being rich in all the elements of cream, should afford large returns of butter.

2d. Age. From the fact, that young and growing animals require not only food to form flesh and blood, to repair the incessant waste and change taking place in their bodies, as in older animals, but also a further supply to increase the bulk of their frame, it is evident, that their food will be more completely exhausted of all its principles, and that also less will be returned as dung. All experience confirms this reasoning, and decides that the manure of young animals is ever the weakest and poorest.

3d. The sex. This is one of the most powerful of the causes which affect the strength of dung. From the remarks which have been already made, and which I trust, reader, are now fresh in your memory, of the important part acted by nitrogen in dung, it must be plain why sex should exercise such influence. 1st. In all food, as we have explained, that only which contains nitrogen, can form flesh and blood, or substances of similar constitution, that is, requiring a large proportion of nitrogen, as milk. Hence an animal with young, that is, a cow before calving, requires not only materials for its own repair, but to build up and perfect its young. Hence the food will be most completely exhausted of its nitrogen, and consequently the dung become proportionably weaker. 2d. The young having been formed, then milk is required for its sustenance. Milk contains a large proportion of nitrogenous or blood-forming elements, and so the cause which originally made the dung weak, continues to operate during all the time the animal is in milk. Sex, then it is evident, affects materially the quality of the dung.

4th. The condition. If the animal is in good condition, and full grown, it requires only food enough to supply materials to renew its waste.

Hence, the food, (supposing that always in sufficient quantity,) is less exhausted of its elements, than when the animal is in poor condition. In the last case, not only waste, but new materials must be supplied. If the animal is improving in *flesh*, (and here, reader, I would have you bear in mind the distinction between flesh and fat,) if the animal is improving in flesh, then the manure is always less strong, than when he is gained fat. There is no manure so strong as that of fattening animals. An animal stall-fed, kept in proper warmth, requires but little of his breathing food, to keep up his heat. All the starch, gum, sugar, &c. go to form fat. Having little use for his muscles or flesh, that suffers little waste, and the nitrogen which should go to form flesh, is voided in dung. If it is a she, no milk is given during this period, for a cow in milk, fats not.

The dung, then, of fattening animals, contains more of all the elements of food for plants, than at any other period, and is peculiarly rich in nitrogen. I trust, reader, it is not so long since you have met the word ammonia, that you have forgotten that its source and origin are due to this nitrogen. Now the source of this nitrogen is in the food, and as, during fattening, grain, is supplied for its starch, &c., to make fat, and very little waste of the body taking place, the extra nitrogen of the blood-forming materials of grain, is nearly all voided in dung.

5th. The mode of employment. Your working beasts suffer great wear and tear of flesh and blood, bone and muscle, thews and sinews. Hence their daily food supplies only this daily waste: the food is very thoroughly exhausted, and of course the dung is weak. It derives its chief value from the excretions of those parts of the body which are voided as waste materials, among the excrements. There is a distinction to be noted here: excretions are the worn-out flesh and blood elements—excrements, the undigested and unused food: dung includes both excretions and excrements. Now the chief value of the dung of working cattle depends upon the excretions.

6th. The nature of the beast. If his coat is wool, he requires more sulphur and phosphorus, the natural yolk or sweat of his wool, more lime and ammonia, than does the hairy-coated animal. Hence sheep produce manure less rich in many of the elements of plants, than cattle; but as at the same time it contains a larger portion of nitrogen, and is very finely chewed, it runs quicker into fermentation. It is a hotter manure, quick to eat, quick to work, and is soon done.

7th. The kind of food. We have already spoken of this as affecting the quantity of dung. Its effects are no less marked on its quality. Now all that requires to be said on this subject, is to remind you, reader, of the two divisions of food, the fat-formers, and the flesh and blood-formers. It must be evident, that the more of this last the food contains, that is, the more nitrogenous is the food, the richer the dung. Hence, grains of all sorts, peas, beans, &c., will always give a richer dung than fruits, as apples, &c. The more nitrogenous the hay, the richer the dung. Meadow cats-tail and rye grass are nearly six times stronger in ammonia than oat straw. Red clover is twice as rich in nitrogen as herds-grass; wheat, barley, and rye straw, green carrots and potatoes contain only about one-third to one-fifth the ammonia of herds-grass, and turnips only about one-sixth. The quantity of ammonia contained in these different grasses and straws, shows at once the effect they must have in the compost heap. The kind of litter must have no small effect upon the value of manure. And while we are upon this subject, it may not be out of place to mention, that the kind of a green crop turned in, materially affects the value of the process. While the straws of the grain-bearing plants afford for every ton of green crop turned in, about three-quarters of a pound of ammonia, green corn-stalks and herds-grass, about five pounds of ammonia per ton; red clover affords about seventeen pounds of ammonia per ton. The very great value of clover in enriching land is thus made evident. But to return to the quality of the dung, as affected by the food, it has been proved, that animals fattening on oil cake, give manure in value double that of common stock. Here abundance of nitrogen is supplied where but very little is required, and consequently much is voided in dung.

The point to which we have arrived is a breathing place: the remarks which have been offered upon the action of salts, have prepared the way for our entering upon the next section—the second class of manures.

(To be continued.)

For the New England Farmer.

ROOT CROPS—NEW METHOD OF PLANTING POTATOES.

Mr Editor—At the sixth agricultural meeting at your State House, the Hon. Mr Allen made some very judicious remarks, as I think, upon the cultivation of the various kinds of root crops for feeding stock. He says "the turnip family can be raised with less expense than any other roots within my knowledge." But he objects to the cultivation of the turnip and ruta baga, upon account of their being great exhausters of the soil. Mr B. V. French is of the same opinion. Now there is frequently a crop of bagas of from 800 to 1000 bushels raised upon an acre—and we should expect that they would exhaust the soil; but it is now a received opinion that a large portion of the food of plants is derived from the air, in an especial manner by those having large leaves, like the English turnip and baga; and it is also a settled fact, that if you return to the land the crop that has grown upon it, you add to the fertility of the soil, because you return to it all that has been abstracted by the growing crop, with the addition of that derived from the air. From the above reasoning, then, if the crop is consumed by the farm stock, and the manure, solid and liquid, be returned to the turnip ground, it would be enriched; or if applied to some other part of the farm, that is enriched perhaps in a greater ratio than the turnip ground is impoverished. From some few trials in feeding cattle through our long winters upon a portion of roots, I am satisfied that their value is not fully appreciated by farmers in the country, *even* where they never sell a quart of milk. The ancestry of our race of cattle were formed to feed the year round upon green forage—and a peck or two a day of roots, with their dry meadow hay, must be conducive to their health and comfort, during winter, and to the profit of the farmer.

With the highest respect for Mr Allen's opinions on all matters appertaining to the farm, I should not have ventured to make any comments upon his remarks, had I not thought they were rather calculated to deter farmers from cultivating the turnip family of roots, on account of their exhausting qualities, notwithstanding he thought they might be raised cheaper than any other roots. If I have taken a right view of the subject, his objections are not of a very serious nature.

In the N. E. Farmer of Feb. 21, p. 267, you have copied from the Farmer's Cabinet, an article on the cultivation of potatoes. The writer of the article says: "The object of this essay is partly to give publicity to a method by which the writer is induced to believe more potatoes could be raised to the acre than by any other method that has

come to his knowledge." He gives directions for preparing the ground, &c., and directs that the seed be dropped in the furrows, at the distance of a foot apart; and says—"Admitting the plants would yield an average of two ordinary sized potatoes to each—it has been ascertained that 280 middle sized potatoes make a bushel—then, as there are 43,500 square feet in an acre of land, and calculating 280 potatoes to the bushel, we have a yield of 311 bushels to the acre."

At first view, this looks tolerably fair; but come to apply the "sober second thought," it alters the case; for there seems to be quite a serious objection to this new method, from *the quantity of seed* required to plant an acre—for it is the general opinion that good, *fair sized whole* potatoes should be use for seed. Now, according to the above calculation, there are 43,500 square feet to an acre, and 280 potatoes to the bushel, and to plant an acre as he directs, it would *only* take the *small* quantity of 155 1-2 bushels of seed to plant an acre: consequently I am induced to believe that more potatoes would be required to plant an acre by this method, than by any other that has ever come to my knowledge. However, any one having doubts upon the subject, can have them removed by trying this *new method*, as I do not learn that there is any patent right taken out by the originator of this important discovery.

I read the account of this new method of planting potatoes, to an old stiff-rumped farmer, who eschews all agricultural papers as "Old Sooty" does holy water. He exclaimed, "By the hokey! I guess that is about as good as any of your book farming. I don't want any of your new-fangled notions. Let me prepare an acre of land as he tells of, and plant it the old-fashioned way, with from 15 to 20 bushels of seed, and I can raise 300 bushels, and save 130 or 140 bushels of potatoes, which I can sell this spring for 33 cts. per bushel, which will amount to a snug little sum in these times, when farm produce is so low, that nothing wont hardly fetch nothing." The old farmer thought his argument was a clincher, and I did not dispute him, from the fact that I thought he would in this case have the best of the argument on his side. Yours, &c.,

L. BARTLETT.

Warner, N. H. Feb. 1844.

MANURING AND STEEPING OF SEEDS.

The quantity of inorganic matter contained in the grain of wheat, oats, barley, &c., is comparatively small. But, though small in quantity, this inorganic matter is absolutely essential to the perfect condition of the seed, and to the healthy growth of the plant that springs from it. When seeds are steeped in water, they swell and increase in bulk. They absorb a portion of the water and of any saline substances it may hold in solution. Now, if the small quantity of saline or inorganic matter which exists in seeds, does really promote their growth, may not a larger quantity promote it more? May not the growth be more luxuriant if the seed be steeped in water containing saline substances in solution, and be thus made to absorb an additional proportion? It does not appear unreasonable to suppose that a bushel and a half of seed wheat may be made to absorb a pound of saline matter. This appears, indeed, to be only a very small quantity, and yet, if absorbed, it would add one-half more to that which the seed naturally contains. We cannot pronounce beforehand, with absolute certainty, that by this absorption the growth of the seed would be greatly promoted, though both theory and practice concur in rendering it probable. Thus the experiments of Bickes—whose mode of preparing seeds appears to be a simple steeping in saline solutions—appear decisive in favor of the opinion, that such artificial additions to the saline matter of these, do really, in some cases at least, greatly promote the growth of the seeds, and increase the luxuriance and produce of the after crops.—*Prof. Johnston, in the Jour. of Agricult.*

EFFECTS OF SOAKING SEEDS IN CHEMICAL SOLUTIONS.

I steeped the seeds of the various specimens exhibited, in sulphate, nitrate, and muriate of ammonia, in nitrate of soda and potass, and in combinations of these; and in all cases the results were highly favorable. For example: seeds of wheat steeped in sulphate of ammonia on the 5th of July, had by the 10th of August, tillered into nine, ten, and eleven stems, of nearly equal vigor; while seeds of the same sample, unsoaked, and sown at the same time, in the same soil, had not tillered into more than two, three, and four stems. I prepared the various mixtures from the above specified salts exactly neutralized, and then added from eight to twelve measures of water. The time of steeping varied from 50 to 94 hours, at a temperature of about 60 deg. Fahrenheit. I found, however, that barley does not succeed so well if steeped beyond 60 hours. Rye-grass and other gramineous seeds, do with steeping from 16 to 20 hours, and clovers from 8 to 10, but not more; for, being bi-lobate, they are apt to swell too much and burst. The very superior specimens of tall oats, averaging 160 grains on each stem, and 8 available stems from each seed, were prepared from sulphate of ammonia. The specimens of barley were prepared from nitrate of ammonia: they had an average of 10 available stems, and each stem an average of 34 grains in the ear. The other specimens of oats which were next the most prolific, were from muriate of ammonia; and the promiscuous specimens of oats were from the nitrates of soda and potash—strong, numerous in stems, (some having not less than 52,) but not so tall as either those from the sulphate or muriate of ammonia.—*Mr Campbell, in Transactions of the Highland Agricul. Soc.*

EXPERIMENTS WITH GUANO.

We extract the following from an English periodical:

From amongst observations and experiments published by Messrs. Gibbs & Son, and from private sources, we select the following information. In the growth of potatoes, 2 1-2 cwt. of guano to the acre, put into the drills, (which probably would not be more than an ounce to the yard,) its effect was superior to that of the usual quantity of stable manure. Sown on grass, at the rate of an ounce to the square yard, (or at the rate of 300 lbs. to the acre,) its effects have proved highly productive. Whenever guano is intended to be spread broadcast over land, it will be the most convenient mode to effect its regular distribution, by first mixing it with three or four times its bulk of fine dry loamy earth; and, of course, using a proportionably increased quantity of the mixture. Sir T. F. Buxton, Bart., applied to grass, guano at the rate of 2 cwt. to the acre, and soot 4 cwt. to the acre. The produce was 56 lbs. from a rod manured with soot, and 114 lbs. from a rod dressed with guano. Mr Banton, of Siesdon, had a field of wheat sown in October. On the 23d of April following, he had six plots, of 1-4 of an acre each, accurately measured off, and to these respectively he applied the following manures, at the rate *per acre* mentioned, and obtained the produce *per acre*, as stated against each experiment, viz:

1.	Guano, 1 1-4 cwt.	produce, 45 bush.
2.	Guano and nitrate of soda, (equal portions,) 1 1-4 cwt. of the mixture,	44 "
3.	Nitrate of soda, 1 1-4 cwt.	41 "
4.	White caustic lime, 4 tons,	42½ "
5.	Lime, 10 cwt., salt 5 cwt., mixed a week previous to its application,	39 "
6.	No manure,	39 "

The straw grown on the plot manured with guano, considerably exceeded that of either of the others, while the wheat was of equal weight per bushel.

In another experiment at Wraxhall, Somersetshire, a little over 2 1-2 cwt. of guano was tried against 12 tons of stable manure, and also against 20 bushels of bones, on wheat. The produce from the guano-manured ground was greatest.

An experiment with a crop of Swede turnips, at the same place, showed the following results: 2 1-4 cwt. of guano, mixed with a like quantity of mould, and half as much powdered charcoal, produced 17 tons of turnips per acre, costing for manure, £1 15s. 5d. 20 tons of stable manure produced 16 tons of turnips, at a cost for manure of £4 14s. 8d. 32 bushels of crushed bones produced 15 tons of turnips, at a cost for manure of £4 6s. 3d.

We have before us many statements from practical men, on the application of guano to almost every description of produce, both of the field and garden; and in all instances where it had been used discreetly, it has proved the most valuable ingredient that has hitherto been tried, as manure. From our own experience, and that of numerous agriculturists with whom we have corresponded, we infer that the practice of the Peruvians in the use of guano, has been duly founded on experience, and is that which proves the most beneficial: we mean the application of it to the plant when in a growing state, in preference to its mixture with the earth before, or at the time of, sowing the seed. Again, the Peruvians are correct in applying water immediately after its application, without which it cannot enter the earth, and be taken up by the roots of the plant. Hence the advantage of applying it in a liquid state, when convenient, or in showery weather.

[The writer closes with some practical suggestions for the guidance of those who may wish to try this manure, the last of which is this:]

Rub together on a plate or stone, a little fresh-slaked lime, with four times the same quantity of guano; put it into a wide-mouthed bottle; you will then have evidence from the smell, not only of the abundant quantity of ammonia which it possesses, but also of the impropriety of mixing lime with it, for use; seeing that the ammonia is liberated, and would be lost in the atmosphere.

As guano loses ammonia by exposure, the writer says it should be kept in close boxes or casks, and that it should not be sown in an unmixed state, in immediate contact with the seed.

NEW ENGLAND FARMER,
AND HORTICULTURAL REGISTER.

Edited by Joseph Breck.

Boston, Wednesday, March 6, 1844.

EIGHTH AGRICULTURAL MEETING AT THE STATE HOUSE.

(Continued from page 282.)

Mr B. V. French remarked that the lovers of good fruit need not hesitate about planting trees, even if their soil was not the very best. It might be raised on almost any soil, however rugged or sterile. Fruit of the finest quality had been raised even at Nahant. Many suppose that fruit trees would not flourish where there had been an old orchard. This was true to some extent: if all that is essential for the growth of the trees had been exhausted in the soil, it would be necessary to renovate it by applying potash and other substances which enter into the composition of the tree. He said he had a fine orchard which was in grass ground that had never been tilled, which produced good crops of Porters, Greenings, and other varieties of fine quality; the ground was kept in good heart by surface manuring; the trees were dug about, kept free of grass a few feet around them, and well pruned. To keep off borers, he washed the trunk of the trees with potash water, or soap, and sometimes lime was used for the same purpose. He had set out another orchard on a seven-acre lot, in which he went more methodically to work. He first took out the stones and built a wall about it, plowed, rolled, and harrowed it lightly. The trees had been procured the fall previous, and laid in by the heels. Having fixed the proper position for each tree, he commenced planting them out in the spring, on the sod, without digging any holes, unless the roots were long and difficult to manage, when a little digging was necessary: good loam was then brought to the roots, so as to cover them: he lost only three trees in the lot. As to staking the trees, he did not approve of the plan; thought they did better without, unless the tree was crooked: in that case, a stake should be put down, and the tree tied up close to it, putting round sufficient matting, or something else, so that there could be no chafing: this orchard has done well, but if it had had the benefit of a subsoil plowing before planting, would no doubt have done better. The subsoil plow has since been used with good results in this same orchard, plowing and stirring up the ground as near the trees as was judged safe.

Mr French remarked that a neighbor of his considered it a good day's work for four men to set out ten trees, and thought it necessary to trench the ground two feet deep, and ten in diameter. Trees planted in ground thus prepared, would thrive well, undoubtedly. Mr F. thought so much labor unnecessary: the subsoil plow was about as effectual as trenching. He found that trees do well when planted near walls, but he thought better to plant at some distance from them. When it is perceived that the foliage of a tree looks sickly, and the ends of the limbs begin to decay, it indicates a want of potash: this should be applied to renovate the soil.

Last year, after preparing a very stony four-acre lot of land, by taking off the stones and filling up the stone holes, he plowed and subsoiled it—then rolled, and harrowed it lightly: a substantial stone wall enclosed the field. First, he sat a row of cherries, two rods from each other, near the wall: then two rods parallel from them, a row of apple trees—between the rows of apples a row of pears—and between the apples and pears, a row of peach trees. He avoided setting deep. He cut the peach trees down to 8 or 10 inches above the budding. Although the season was a very trying one, on account of the long continued drought, most of the trees did well. He lost some pear trees, but accounted for this by the fact, that these trees were of very vigorous growth and the wood was not fully matured. He has set out peach trees when in bloom, and thought they did better than when set out before the buds began to start. Peach trees should be kept low, and made to branch out near the ground: unless proper attention was paid to them, they were apt to grow straggling and unsightly.

In setting out an orchard, no one has good reason to expect success, unless it is protected from cattle, which will seriously injure the trees by rubbing against, eating, and breaking them down. Pruning should be done when the tree is young. When it is deferred until the tree is old, and large limbs are amputated, the wounds are so large they will not heal over, and by exposure to the weather, will soon begin to rot, and the limb eventually become hollow. A young orchard requires constant attention. In selecting fruit trees, it was often necessary to consult the nurseryman—but his opinions were not always infallible: they were liable to mistakes. To prevent disappointment, it was a good plan to have a good supply of thrifty stocks always on hand for budding: the buds should in all cases be taken from bearing trees. He thought it best to bud when the stocks were young. In regard to the varieties of fruit to be selected, every farmer must be his own judge. We have now a good succession of fine apples, and the same may be said of pears. The plum, he said, did better near the sea-shore and in the city (Boston,) than it did farther back in the country. A large reward had been offered by the Horticultural Society for some mode of destroying the Curculio, but as yet nothing satisfactory had been presented. It is a very destructive enemy, and its depredations are discouraging to cultivators of this fruit. He had pretty much come to the conclusion that, with the exception of the caterpillar, which might easily be destroyed by one of "Pickering's brushes," it was about as well to let the insects remain undisturbed, and commit their depredations in quiet—for he had found all attempts to banish or destroy them, useless and futile. He said, in conclusion, that industry and perseverance were indispensible in establishing good and flourishing orchards.

Mr John C. Gray, of Boston, said he had been engaged in agriculture for the last 20 years; but his attention had been directed in a particular manner to the cultivation of fruit trees, in which he had been deeply interested. It has been a question whether the spring or fall was preferable for transplanting. He had been in the habit of settting out in the spring, and thought that to be the most suitable time. He has suffered much from drought after planting, but found that by placing moss around the trees, the difficulty was in a measure obviated. He said, in England the climate was so different from ours, that it might be best there to plant in the fall, as the roots, perhaps, would grow—but not with us.

Another question was, whether the ground for an orchard should be broken up and kept in cultivation, or suffered to lie in grass. No doubt the fruit would be better where the ground was perpetually tilled; but he thought it a great sacrifice: the extra quantity and quality of the fruit would not make up for the loss of the grass. He has an orchard which has always been in grass, and which has always done well; but he keeps it rich, and the ground dug up to the distance of 6 or 8 feet from the trees. His trees were planted near the surface. He said that gardeners agree about the grape vine, that the borders for them should be wide and not deep, as the roots would run near the surface. The same rule would apply to all other trees. He thought it a good practice to put stones under the roots of a tree.

Mr Gray said he had been troubled with canker worms, and had tried all manner of experiments to get rid of them. He had raised up little heaps of sand round the tree; the grubs would crawl up part way and then fall down, and thousands might be caught; but this mode was not effectual; some would succeed and go up the tree. Tarring injures the tree, and if a strip of canvass is put round first, when the tar is applied, if it is warm, it soon hardens; if it rains, it chills, and in either case, the grubs will find their way over. Lead gutters are expensive, and will soon be filled up; and the wind will sometimes dash out the oil. There is an uncertainty in all these expedients, and they cost more than they come to. He thought the cheapest and most thorough mode was to make a wooden boot or square box round the tree, with projecting eaves; then tar in the angle under the projection. In this way the tar was protected from the sun and rain, and would remain soft much longer. The space between the box and tree should be stuffed or wadded, so that the few grubs that may be in the ground between the box and tree, cannot get up. The grubs will not undermine. The boxes will cost but about one shilling each.

He said Dr. T. M. Harris, of Cambridge, recommended swine, whose scent is very acute, to be turned into an orchard, as a preventive against the canker-worm, as they would root about the trees and devour the grubs.

Mr Gray said, in regard to the distance to set apple trees from each other, some thought two rods was about right, but he had them set out 40 feet: he remarked that Mr Phinney thought 40 feet too small a distance. In England, 60 feet was the customary distance, but in this country we have more sun and heat, and a less distance would be sufficient. Pruning should be done when the tree is young.

Mr G. said the apple would be our staple fruit, and that no investment near Boston could be made better than in fruit trees. He thought a pear orchard would be more profitable than the apple: they live longer but come into bearing later. He referred to the Endicott pear tree at Danvers, which is now more than 150 years old, and still in bearing. We have much encouragement in having so much sun. He thought standard fruit better than that from trained trees: there may be exceptions in some delicate varieties which need the wall. As to the Peach, we are just in the line where it may be cultivated: did not know whether it is best to prune at all: it is not long-lived, and at best is but a sickly shrub, and must be treated as such. Our winters are rather too cold for it. The great enemies to the Plum are the Curculio and warts. The origin of these warts is attributed by some to the bursting of the sap vessels—by others, to an insect—but he did not know that there was any remedy. He was of opinion that swine would be beneficial in the destruction of the curculio, by turning them in among the trees. There was very little, however, that could be done to prevent their ravages. But with the caterpillar it was different: a person was inexcusable, who suffered caterpillar webs to disfigure his trees: they could be easily taken off with a conical brush. Borers did not trouble him: he suggested that it was owing to his clayey soil. The Quince is a valuable fruit; he had observed great quantities planted in West Cambridge, near Fresh Pond. It was easily cultivated, and he recommended it to the favor of the farmer.

Mr Gray was asked, whether canker worms would be so likely to annoy when the orchard was in tillage as when in mowing. He replied that he thought not.

[We must defer the remarks of other gentlemen until next week.]

SEEDS FROM THE PATENT OFFICE.

We acknowledge the receipt of a number of packages of seeds from the Hon. H. L. Ellsworth, of the Patent Office, as follows: Etrurian wheat, (winter); Kloss White Blue Stem Winter do.; White Flint Winter do.; Tuscany Winter Wheat; Calcutta Flax-seed; Multicaule Rye; Prolific White Bush Beans; Improved Maryland Melon; Improved Black Water Melon; Bird's Eye or Nancemond Water Melon; Twin Corn; Calico do.; White Flint do.; and a variety of garden seeds. We shall either try them ourselves or hand them to some of our agricultural friends who will experiment with them and give an account of the produce.

THERMOMETRICAL.

Reported for the New England Farmer.

Range of the Thermometer at the Garden of the proprietors of the New England Farmer, Brighton, Mass. in a shaded Northerly exposure, for the week ending March 3.

March 1844.	7 A.M.	12, M.	5, P.M.	Wind.
Monday,	26	15	37	32	E.
Tuesday,	27	31	39	32	E.
Wednesday,	28	31	31	32	N.
Thursday,	29	24	40	37	E.
Friday,	1	34	58	43	S. E.
Saturday,	2	38	48	42	E.
Sunday,	3	38	47	38	N. E.

BRIGHTON MARKET.—Monday, March 4, 1844.

Reported for the N. E. Farmer.

At Market 450 Beef Cattle, 950 Sheep, 350 Swine. 100 Beef Cattle of the best qualities unsold.

Prices.—*Beef Cattle.*—A few extra $4 75 a $5. First quality $4 25 a $4 50; second quality $3 75 a $4 25; third quality $3 25 a a $3 50.

Sheep.—Small lots from $1 75 to $2 50. Wethers from $2 75 to $3 50.

Swine.—Lots to peddle 4 3-4 for sows and 5 3-8 for barrows. At retail from 5 to 6 1-2.

WHOLESALE PRICES CURRENT.

Corrected with great care, weekly.

SEEDS. Herds Grass, $2 37½ to 2 62 per bushel. Red Top 45 to 50 cents. Clover—Northern, 00 to 12c.—Southern, 10 a 12 c. Flax Seed, $1 50 per bushel. Lucerne, 33 c. per lb. Canary Seed, $2 75 per bushel.

GRAIN. There has been a steady demand from the dealers, and about all the arrivals of the week have been sold.

Corn—Northern, new, bushel 00 to 00—Southern, round yellow, old, 00 a 00—Southern flat yellow, new, 49 a 00—do. do. white 45 a 00—do New Orleans, 00 a 00—Barley 00 a 00 —Rye, Northern, 70 a 72—do. Southern, 00 a 00 —Oats, Southern, 30 a 32—Northern do. 33 to 34—Beans, per bushel 1 00 a 1 62.—Shorts, per double bush. 30 a 35—Bran, 20 a 23.

FLOUR. Throughout the week past, the market has exhibited a very languid demand, the sales being almost exclusively confined to the home trade.

Baltimore, Howard Street, 4 mos. cr. $0 00 a 5 12½—do. wharf, $0 00 a 5 00—do. free of garlic, $0 00 a 5 12½—Philadelphia do. 4 mos. $5 00 a 5 12 —Fredericksburg, low Pd 4 mos. $5 00 a 5 12—Alexandria, wharf mountain, 0 00 a 0 00. —Georgetown, $5 12 a 5 50—Richmond Canal, $5 00 a 5 12 —do. City, $0 00 a 0 00—Petersburgh, South side $0 00 a 0 00 —do. Country $5 00 a 5 50—Genesee, common, cash, $5 19 a 5 25— do fancy brands $5 37 a 5 50 — Ohio via Canal, $0 00 a 0 00—do do New Orleans, cash $5 00 a 5 50. Rye, $3 62 a 0 00—Indian Meal in bbls. $2 75 a 2 87.

PROVISIONS. There have been some extensive operations in Pork during the week past, and holders are rather more firm in prices; the sales have been principally within the quoted rates. Mess Beef is in rather more demand, at a slight improvement for selected brands.

Beef—Mess 4 mo. new bbl. $7 00 a 7 50—Navy—$6 25 a 6 50.—No. 1, $6 00 a 0 00—do Prime $5 00 a 5 50—Pork—Extra clear 4 mo. bbl. $12 50 a 13 00—do Clear $11 50 a 12 00 do. Mess, 9 50 a 10 00—do Prime $7 75 a 8 25—do Mess from other States,— a — —do Prime do do $0 00 a 0 00 do. Cargo do. 0 a 0 00— —Clear do do $00 00 a 00 00— Butter, shipping, 12 a 14—do store, uninspected, 0 a 00—do dairy, 14 cts. a 17—Lard, No. 1, Boston ins. 6½ a 7 —do South and Western, 6½ a 7 — Hams, Boston, 0 a 0 — Southern and Western, 5 a 5½—Cheese, Ship'g and 4 meal, 3 a 4½ —do new milk, 4½ a 5½.

WOOL. Duty. The value whereof at the place of exportation shall not exceed 7 cts. per pound, 5 per cent. ad val. All whereof the value exceeds 7 cts. per pound, 40 per ct. ad. val. and 3 cts. per pound.

There has been no important change in the market since the last review. A good demand continues for all descriptions, and prices are firm.

Prime or Saxony Fleeces, washed, lb. 40 a 48 c.—American full blood, do 40 a 45—Do. 3-4 do 35 a 38—Do. 1-2 do 33 a 35 -1-4 and common do 28 a 32 — Smyrna Sheep, washed, 20 a 25— Do. unwashed, 10 a 15 — Bengasi do 5 a 13—Saxony, clean, 00—Buenos Ayres unpicked, 7 a 10—do. do. picked, 10 a 15—Superfine Northern pulled lamb 35 a 40—No. 1 do. do. do. 30 a 35—No. 2 do do do 25 a 30—No. 3 do do do 18 a 20.

HOPS. Duty 20 per cent.

About 100 bales arrived this week from the growers, which remain unsold. Nothing doing by dealers beyond a limited retail demand.

1st sort Mass. 1843, lb. 7 a 7 1-4; 2d do

HAY, 14 to 16 per ton—Eastern Screwed $10 to 12.

EGGS, 15 a 18.

POULTRY. Turkies per lb. from 9 to 12cts.—Geese common 7 to 9—Bremen 10 to 12—Chickens 6 to 10—Ducks 8 to 10.

NONANTUM HILL.

NURSERY OF WILLIAM KENRICK.

Baldwin and other Apple Trees of fine sizes. 10,000 Peach Trees, also of kinds superior and of sizes fine; Pear, Plum, Cherry, Apricot, Nectarine Trees of kinds new or most highly esteemed.

This nursery, by late extensions, now covers 30 acres of ground. A large green house is now being added.

Franconia Raspberries, Grape Vines, Currants Gooseberries, Strawberries—of kinds most approved. The descriptive Catalogue for 1843 will be sent to all who apply.

Ornamental Trees and Shrubs, and Honeysuckles; yellow Harrison and other Roses; Tree and other splended Pœonies of different colors. Also, Myatt's Victoria and other new kinds of Rhubarb, double Dahlias, &c. &c.

All orders addressed to the subscriber will be promptly attended to, and Trees when so ordered will be securely packed in mats and moss for safe transport to all distant places, and delivered in the city by the wagon which goes hither daily, or shipped to order, or per railroad. Orders may be left with Joseph Breck & Co. 51 & 52 North Market street, John G. Locke, Esq., or Eliphalet Wheeler, Esq., Framingham.

WILLIAM KENRICK.

March 6. eptM15 Nonantum Hill, Newton.

FINE PICOTEE PINK SEED.

The subscribers have for sale a few packages of Pink Seed, saved from the varieties of double Pinks which were exhibited by them at the Horticultural Rooms, and for which they obtained premiums the last season. This is probably the finest seed of American growth ever offered for sale. Price 25 cents per package. Also extra fine English Picotee and Carnation seed at 12½ cents per package.

JOSEPH BRECK & CO.

Boston, March 6, 1844.

WANTED.

An experienced and thorough farmer, of strictly temperate habits, is wanted to do the work upon a small farm, easily cultivated, within 20 miles of Boston. One without a family would be preferred. Satisfactory recommendations required.

Application to be made to the editor of this paper, or address (postage paid,) F. B. at the office of the New England Farmer. Boston, March 6, 1844.

FARM WANTED.

A Farm, worth from 3 to $6000 and within 30 miles of Boston, is wanted in exchange for valuable Stocks, or part payment in cash. Apply at 45 Harrison Avenue, before March 7th, at 3 1-2 P. M. only. 2t Feb. 28.

LONDON HORTICULTURAL SOCIETY'S CATALOGUE OF FRUITS.

The subscribers have received a few dozen of these valuable Catalogues. Those who have ordered them are requested to call before they are all taken.

Feb. 28. JOS. BRECK & CO.

WANTS A SITUATION AS GARDENER.

A young man who is well acquainted with the various branches of Gardening, and who can procure satisfactory testimonials, by applying at Mr McOLOUGH'S, South Boston. Address J. D. *5w. Feb. 28.

GUANO! GUANO!

Just received by the subscribers, a few bags of Guano. For sale in small quantities to suit purchasers.

JOSEPH BRECK & CO.

Boston, Feb. 28, 1843.

WANTS EMPLOYMENT.

A steady man, a native of Scotland, perfect in the culture of the Vegetable, Fruit and Flower Garden,—the constructing of Grape Vinaries, upon an extensive and most approved plan of durability—the culture and management of Forcing in all its various branches—and the propagation of Plants. A lady or gentleman wanting a man of the above capacity, will please leave a line at JOSEPH BRECK & CO'S. Seed Store, addressed to T. Y. Feb. 28.

WANTS A SITUATION AS GARDENER.

A young man who understands the Green House, Hot House, Forcing, Nursery, Flower and Kithen Gardening, in all its various branches, and who has had several years experience in one of the best places in New England, wishes a situation in any private or public establishment. Can furnish the best reference.

A line addressed to B. W. O. Roxbury, Mass., will command immediate attention. Feb. 14.

JOSEPH BRECK & CO.,

NEW ENGLAND

Agricultural Warehouse

AND

SEED STORE.

51 and 52 North Market Street, Boston.

JOSEPH BRECK & CO. having received a full and general assortment of FIELD, GRASS, GARDEN and FLOWER SEEDS, worthy of cultivation, confidently recommend them as being pure and of the first qualities, unmixed with other varieties; they have no hesitation in saying that their collection of Seeds is the best, and of the greatest variety ever offered for sale at any establishment in the U. States, and would invite all to send in their orders as soon as possible, that they may supply themselves with the choicest varieties in good season for the Spring planting.

The following are a few of the most important kinds which they offer wholesale and retail, viz:

PEAS.

Cedo Nulli, Hills' Early, Early Dwarf, do. Charlton, do. Frame, do. Warwick, Improved Blue Imperial, Woodford's Dwarf Marrow, Bishop's Dwarf, for borders, Knights' Dwarf, Dwarf Marrowfats, Tall do.

BEANS.

Lima, Saba, Horticultural Pole, Dwarf China, do. Mohawk, do. Marrow, Red Cranberry Pole, White do. do. Kidney Pole, Dwarf Kidney, do. Case knife, do. Six Weeks, &c.

CABBAGES.

Large Late Drumhead, Late Sugar loaf, Green Globe Savoy, Red Dutch, Low Dutch, Early York, Battersea, Vanack, Hope, Early Sugar-loaf, with a complete variety of other kinds.

Long Blood and Turnip Beets, French Sugar Beets, Mangel Wurtzel, Ruta Baga, Long Orange, Early Horn and White Field Carrots, Early and Late Cauliflowers, Broccolis of all sorts, Cucumbers, Melons, Squashes, sweet Marjorum, Sage, Summer Savory, Thyme, and Turnips, more than twenty fine varieties.

They have just received per Ship Minerva, a fine and choice lot of new Flower Seeds, which together with an assortment of over four hundred kinds, comprise the most complete collection ever offered for sale.

FRUIT AND ORNAMENTAL TREES,

Shrubs, Grape Vines, Roses, Dahlias, Green house Plants, Rhubarb and Asparagus Roots, and all Nursery productions furnished at one day's notice, and when requested, can be packed in mats and boxes, so as to be sent to Europe or any part of America.

Dealers supplied on the most liberal terms with Seeds of various sizes, containing a complete assortment, neatly put up in papers, labelled and sealed ready for retail, with printed directions on each package for its management and cultivation.

GRASS SEEDS,

At wholesale and retail, at the lowest market prices. Also, Kentucky Blue Grass, a first rate article for Lawns. Clover Seed, Red and White, Orchard Grass, Oat Grass, Fowl Meadow, Northern and Southern Red Top, Barley, Oats, Millet, Rhode Island Grass, Buckwheat, &c., &c., of the best quality and for sale low.

AGRICULTURAL BOOKS of all kinds, constantly on hand.

AGRICULTURAL AND GARDEN IMPLEMENTS of all kinds, among which are the following, viz:—1000 Howard's Patent Cast Iron Ploughs, 200 Common do. do, 200 Cultivators, 100 Greene's Straw Cutters, 50 Willis' do. do. 100 Common do. do, 100 Willis' Patent Corn Shellers, 50 Common do. do, 200 Willis' Seed Sowers, 50 do. Vegetable Cutters, 50 Common do. do., 200 Hand Corn Mills, 200 Grain Cradles, 100 Ox Yokes, 1500 Doz. Scythe Stones, 3000 do. Austin's Rifles, 100 doz. Cast Steel Shovels, 150 do. Common do. 100 do. Spades, 500 do. Grass Scythes, 300 do. Patent Snaiths, 200 do. Common do., 500 do. Hay Rakes, 200 do. Garden do., 200 do. Manure Forks, 300 do. Hay do. 500 Pair Trace Chains, 100 do, Truck do. 100 do. Draft do, 500 do. Tie up do, 50 doz. Halter do, 1000 yards Fence do, 25 Grind Stones on Rollers.

TIE UP CHAINS!—Just received by the "Oceanus" 300 Chains for tying up cattle. These chains, introduced by E. H. Derby, Esq. of Salem, and Col. Jacques, for the purpose of securing cattle to the stall, are found to be the safest and most convenient mode of fastening cows and oxen to the stanchion.

JOSEPH BRECK & CO.,

N. E. Agricultural Warehouse and Seed Store, 51 and 52 North Market Street, Boston.

Feb. 21, 1844.

FRUIT TREES.

The subscribers are prepared to furnish every description of Fruit Trees, and Ornamental Trees, Shrubs and Plants. The autumn is a suitable time to transplant many Trees and Plants, and often times more convenient than in spring. We have as great a variety of Apples, Pears, Cherries, Plums, Peaches, Quinces, Currants, Gooseberries, &c. as can be found in the country, and offer them at the lowest prices.

JOSEPH BRECK & CO.

Boston, Oct. 11, 1843.

MISCELLANEOUS.

WHAT IS CHARITY?

'T is not to pause when at my door,
A shivering brother stands;
To ask the cause that made him poor
Or why he help demands.

It 's not to spurn that brother's prayer
For faults he once has known;
'T is not to leave him in despair,
And say that I have none.

The voice of CHARITY is kind—
She thinketh nothing wrong;
To every fault she seemeth blind,
Nor vaunteth with her tongue.

In Penitence she placeth Faith—
Hope smileth at her door;
Relieveth first—then softly saith,
"Go brother, sin no more!" *Selected.*

Power of the Peace Principles.—The following beautiful story is told by a correspondent of the Boston Courier, to illustrate the power of peace principles:

I have read of a certain regiment ordered to march into a small town (in the Tyrol, I think,) and take it. It chanced that the place was settled by a colony who believed in the gospel of Christ, and proved their faith by works. A courier from a neighboring village informed them that troops were advancing to take the town. They quietly answered, "If they will take it they must." Soldiers soon came riding in, with colors flying, and fifes piping shrill defiance. They looked round for an enemy, and saw the farmer at his plow, the blacksmith at his anvil, and the women at their churns and spinning wheels. Babies crowded to hear the music, and boys ran out to see the pretty trainers, with feathers and bright buttons, "the harlequins of the nineteenth century."

Of course none of these were in proper position to be shot at.

"Where are your soldiers?" asked the invaders.

"We have none," was the reply.

"But we have come to take the town."

"Well, friends, it lies before you."

"But is there here nobody to fight?"

"No: we are all Christians."

Here was an emergency altogether unprovided for by the military schools. This was a sort of resistance which powder and ball could not meet; a fortress perfectly bomb proof. The commander was perplexed.

"If there is nobody to fight with, of course we cannot fight," said he. "It is impossible to take such a town as this."

So he ordered the horses' heads to be turned round, and the troops evacuated the village, as guiltless as when they entered, and perchance somewhat wiser.

Where is the Schoolmaster?—The Boston Courier says the following is a literal copy of an endorsement on a petition, recently presented to the Mass. House of Representatives:

"Mr Handy of Barnstable Presents the Pretishon of Snow & Rich and 20 others Citersons of Boston Praying for the Law to be amended as Setforth in said Pretishon Relating to Barrels for Mackrel and other Pickled fish wish it Referred to the Committy on Fishreys."

A Very Fair Hit.—A collector of church rates in England, called upon a Quaker, who kept a dry goods store, for the usual sum. The latter said—

"Friend, is it right that I should pay, when I never attend the established church?"

"The church is open to all," answered the collector, "and you might have attended, if you had a mind to."

The Quaker paid the money, and the next day sent the collector a bill for a quantity of broadcloth. The man came immediately to the store of the Quaker, and in a great passion asked the meaning of it, declaring that he never had a single article from his store.

"Oh!" said the Quaker, rubbing his hands, "the store was open for thee, and thou mightest have had the cloth if thou hadst a mind."

Negro Eloquence.—A dandy black stepped into a provision store to buy some potatoes: before purchasing the article, he gave the following truly eloquent description of its nature: "De tater is inevitably bad or inwerably good. Dere am no mediocrity in de combination ob de tater. De exterior may appear remarkably exemplary and butesome, while de interior is totally negative: but, sir, if you wends de article 'pon your own responsibility, knowing you to be a man of sagacity in all your translations, why, sir, widout furder circumlocution, I take a bushel."

"Now, as you are on my *side*, I hope you will stick to me," as the patient said to the strengthening plaster.

The following humorous definition was given by Sheridan:—"Irishman—a machine for converting potatoes into human nature."

PATENT CORN SHELLER.

A Corn sheller is one of the most convenient and labor saving implements that the practical farmer has in use. Various machines for this purpose have been invented. It can be used in all cases for large or small sized ears. It is very simple in its construction, and durable in its operation, and no way liable to get out of order; one man can work it to good advantage, though a man to turn, and a boy to feed it, works it much better than one alone. They are so light and portable, as to be easily removed from place to place, and one machine will serve for several families or even the inhabitants of a small town.

For sale at the Agricultural Warehouse and Seed Store Nos. 51 and 52 North Market Street.

JOSEPH BRECK & CO.

Nov. 1.

WILLIS'S LATEST IMPROVED VEGETABLE CUTTER.

For sale at the New England Agricultural Warehouse, No. 51 and 52 North Market Street, Boston, Willis's Latest Improved Vegetable Cutter. This machine surpasses all others for the purpose of Cutting Ruta Baga, Mangel Wurtzel, and other roots. The great objection to other machines, is their cutting the roots into slices, which makes it almost impossible for the cattle to get hold of them: this machine with a little alteration, cuts them into large or small pieces, of such shape as is most convenient for the cattle to eat. It will cut with ease from one to two bushels of roots per minute. JOSEPH BRECK & CO.

Nov. 1.

DRAFT AND TRACE CHAINS.

400 pair Trace Chains, suitable for Ploughing.
200 " Truck and leading Chains.
200 " Draft Chains. For sale by J. BRECK & CO., No. 52 North Market st.

HARRIS' TREATISE ON INSECTS.

For sale by JOSEPH BRECK & CO., Harris' Treatise on Insects. Price $2. Also, the second edition of Dana's Muck Manual, price 62½ cts. Feb. 15.

HOWARD'S IMPROVED EASY DRAUGHT PLOUGH.

Great improvements have been made the past year in the form and workmanship of these Ploughs; the mould board has been so formed as to *lay the furrow completely over, turning in every particle of grass or stubble, and leaving the ground in the best possible manner.* The length of the mould board has been very much increased, so that the Plough works with the greatest ease, both with respect to the holding and the team. The Committee at the late trial of Ploughs at Worcester, say,

"Should our opinion be asked as to which of the Ploughs we should prefer for use on a farm, we might perhaps say to the inquirer, if your land is mostly light and easy to work, try Prouty & Mears, but if your *land is heavy, hard orrocky,* BEGIN WITH MR. HOWARD'S."

At the above mentioned trial the Howard Plough *did more work, with the same power of team, than any other plough exhibited.* No other turned more than twentyseven and one half inches, to the 112 lbs. draught, while the *Howard Plough turned twentynine and one half inches, to the same power of team!* All acknowledge that Howard's Ploughs are much the strongest and most substantially made.

There has been quite an improvement made on the shoe, or land side of this Plough, which can be renewed without having to furnish a new landside; this shoe likewise secures the mould board and landside together, and strengthens the Plough very much.

The price of the Ploughs is from $6 to $15. A Plough, sufficient for breaking up with four cattle, will cost about $10 50, and with cutter $1, with wheel and cutter, $2 50 extra.

The above Ploughs are for sale, wholesale and retail, at the New England Agricultural Warehouse and Seed Store, Nos. 51 & 52 North Market Street, by

JOSEPH BRECK & CO.

GREEN'S PATENT STRAW CUTTER.

JOSEPH BRECK & CO. at the New England Agricultural Warehouse and Seed Store Nos. 51 and 52 North Market Street, have for sale, Green's Patent Straw, Hay and Stalk Cutter, operating on a mechanical principle not before applied to any implement for this purpose. The most prominent effects of this application, and some of the consequent peculiarities of the machine are:

1. So great a reduction of the quantum of power requisite to use it, that the strength of a half grown boy is sufficient to work it efficiently.
2. With even this moderate power, it easily cuts two bushels a minute, which is full twice as fast as has been claimed by any other machine even when worked by horse or steam power.
3. The knives, owing to the peculiar manner in which they cut, require sharpening less often than those of any other straw cutter.
4. The machine is simple in its construction, made and put together very strongly. It is therefore not so liable as the complicated machines in general use to get out of order.

LACTOMETERS—a simple instrument for testing the quality of milk. For sale by J. BRECK & CO.

NEW ENGLAND FARMER.

A WEEKLY PAPER.

Terms, $2 per year *in advance,* or $2 50 if not paid within sixty days.

N. B.—Postmasters are permitted by law to frank all subscriptions and remittances for newspapers, without expense to subscribers.

TUTTLE AND DENNETT, PRINTERS,
21 School Street.